REMARKS

Claims 1-18 are pending and under consideration. The Office Action states that Claims 1-18 have been rejected and that the rejection has been made Final. Claims 1-3, 7-11 and 13-18 have been amended. New claim 19 has been added. Support for the amendments can be found throughout the specification as filed and drawings and, at least, at Figure 3; Page 5, lines 7-12.

Applicant submits that the claims have been amended in compliance with 37 C.F.R. § 1.121(c) and that no new matter has been introduced by the present Amendment.

Objection to Claim 3

1.   The Office Action states that claim 3 is objected to because of an informality under MPEP § 2106. Specifically, the Office Action states that "capable of" is not a positive recitation.

Applicant respectfully disagrees that the use of "capable of" in Claim 3 suggests that the structure is optional. The language requires that the switch fabric includes the structure necessary to meet the claimed transfers. However, in the interest of expediting prosecution, Applicant has amended claim 3 to remove the term "capable of".

Double Patenting Rejection

2.   The Office Action states that claims 1, 2, 13 and 14 have been rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 5, 16, and 18 of U.S. Patent No. 6,381,238. The Examiner has asserted that although the claims are not identical, they are not patentably distinct.

Without acquiescing to the rejection, Applicant is prepared to submit a terminal disclaimer over U.S. Patent No. 6,381,238 that complies with the requirements of 37 C.F.R. § 1.321 upon withdrawal of the remaining grounds of rejection.

Rejection of Claims Under 35 U.S.C. §103:

3.   The Final Office Action stated that claims 1-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,959,992 issued to <u>Benayoun</u> et al ("<u>Benayoun</u>") in view of U.S. Patent No. 6,195,714 issued to <u>Li</u> et al ("Li").

With respect to independent claim 1, Applicant respectfully submits that neither <u>Benayoun</u> nor <u>Li</u>, either alone or in combination, teaches or suggests, at least, a module for receiving a packet-based signal and transcoding the packet-based signal creating a transcoded packet-based signal; and a module for receiving the transcoded packet-based signal, reassembling the signal creating a circuit-based signal, performing echo cancellation and transmitting the circuit-based signal to the circuit network; and a centralized packet switch fabric for sending the transcoded packet-based signal to the module for receiving the transcoded packet-based signal, wherein the centralized packet switch fabric transfers packet-based signals among the packet network server and the circuit network server.

Briefly, <u>Benayoun</u> teaches a modular approach to operate and/or build communication equipment. <u>Benayoun</u> teaches that each brick has a "4-way connection with its neighbouring bricks. The electrical and mechanical connections is [sic] designed in order to permit each brick to be plugged and unplugged to another one . . . to satisfy a great number of customer requirements and a quasi unlimited number of combinations. . . . <u>[E]ach functional brick</u> need[s] a particular form which allows the customer to easily plug and unplug one brick to the others." (See Col. 6, lines 32-53) <u>Benayoun</u> also teaches that certain functions, such as echo cancellation, are dedicated to specific bricks. (See Col. 21, lines 26-34 and 46-53; FIG. 14). Therefore, <u>Benayoun</u> teaches bricks dedicated to certain telecommunications function and that the bricks can be plugged in with neighbouring bricks. In contrast, Applicant's claimed invention recites a module that creates a circuit-based signal and also performs echo cancellation.

The Examiner cites <u>Li</u> stating that it would have been obvious to one having ordinary skill in the art to incorporate an echo cancellation into the brick 1435 to perform the echo cancellation and other functions (TDM-ATM) together in the brick 1435. <u>Li</u> discloses a "TDM

peripheral 36a,b [that] generally includes Digital Signal Processing (DSP) . . .DSP functions include the playback of recorded announcements, voice bridging for multi-cast and conference calling; fax/modem detection; silence suppression and comfortable noise generation; echo cancellation, etc. The TDM peripheral 36 also includes an adaptor section which provides . . . functionality to convert STM calls to ATM calls." (See Col. 6, lines 26-39) The TDM peripheral of Li should not be incorporated into Benayoun as doing so would be contrary to the disclosure in Benayoun. The advantage of Benayoun is its modularity over the prior art which can be attributed, at least in part, upon permitting each dedicated brick to be plugged and unplugged into other dedicated bricks.

Moreover, with respect to independent claim 1, Applicant respectfully submits that neither Benayoun nor Li, either alone or in combination, teaches or suggests, at least, a centralized packet switch fabric for sending the transcoded packet-based signal to the module for receiving the transcoded packet-based signal.

In the Applicant's claimed invention, the packet switch fabric is used to transfer packet-based signals, as the ability to perform packet adaptation prior to signal processing provides a great deal of flexibility in designing a gateway. (See page 12, lines 5-16 of the originally filed specification). The use of the packet switch fabric can permit, in some embodiments, a reduction in the total number of digital signal processors performing transcoding, which increases the available space on a standard sized gateway layout board and allows for a greater number of circuit network and packet network servers and therefore a greater number of ports. (See page 12, lines 5-16 of the originally filed specification).

Benayoun discloses that a "[logical] function will be located in basic element--so called an elementary brick--that forms a part of the structure. Each brick in this structure is interconnected with its neighbor brick. . . ." (See Col. 5, lines 30-37). Benayoun discloses that these bricks are "a set of mechanically connected apparatuses being vertically and horizontally packed. Each apparatus comprises telecommunication functions such as echo cancellation data compression or ISDN gateway, as well as vertical and horizontal mechanical and communication connections respectively allowing the vertical and horizontal exchanges of frames with

neighbouring apparatuses. The communication is based on a frame comprising n bytes routing header with n being an integer and an Asynchronous Transfer Mode (A.T.M.) cell." (See Col. 2, lines 53-63) Benayoun also teaches that "each brick integrates a switching system 11 which is based on an Asynchronous Transfer Mode (ATM) switch" and that each brick has a "4-way connection with its neighbouring bricks." (See Col. 6, lines 59-64) Benayoun teaches that "[t]he ATM call cell that is processed by the ATM hub 1470 is then transmitted to the voice server brick 1420 via the appropriate path that was determined by the tower management brick 24, and stored into the routing tables of the corresponding intermediate bricks. Let us assume that this path defined by the succession of bricks 1470, 1445, 1430, 1425 and 1420." (See Col. 23, lines 3-9) At best, Benayoun teaches that each brick has a switching system that allows communication to the plugged in neighbouring bricks and that an ATM cell is routed in a path defined by a succession of functional bricks. In contrast, Applicant's claimed invention recites a centralized packet switch fabric for signals from one module to another module.

Li discloses an ATM switch fabric 24a,b that is connected to the TDM peripheral 36a,b, however, Li fails to suggest connecting processing blocks in a centralized fashion. Li therefore fails to teach or suggest a centralized packet switch fabric for sending the transcoded packet-based signal to the module for receiving the transcoded packet-based signal.

Furthermore, the ATM switch fabric 24a,b of Li should not be incorporated to the functional bricks of Benayoun. Benayoun discloses functional bricks that are vertically and horizontally packed and capable of being mechanically plugged and unplugged with other functional bricks. Incorporating the ATM switch fabric 24a,b of Li to Benayoun would be inconsistent with the disclosure in Benayoun, which teaches a path for a signal defined by a succession of functional bricks that are mechanically connected with one another. As the disclosures Li and Benayoun are inconsistent with one another, the combination of the two discloses would render Benayoun inoperable for its primary purpose. Benayoun states that "[t]he object of this new structure is to give the capability to split products in elementary functions, each function being able to be located in a different brick. To achieve this a standardized interface based on ATM communication links is used between all elementary functions." (See Col. 7, lines 13-16). Furthermore, Benayoun also states that "[t]he object of the invention is

provided by means of an apparatus that includes mechanical and electrical connection means for allowing the attachment and the plugging of additional apparatus . . . to constitute a more sophisticated Tower Structure." (See Col. 1, lines 63-67).

With regards to independent claim 2, for the same reasons stated above for claim 1, Applicant submits that neither Benayoun nor Li, alone or in combination, disclose a module for receiving a circuit-based signal and performing echo cancellation and packet adaptation, creating a packet-based signal; a module for receiving the packet-based signal and transcoding the packet-based signal creating a transcoded packet-based signal and sending the transcoded packet-based signal to the packet network; and a centralized packet switch fabric for transmitting the packet-based signal to the module for receiving the packet-based signal, wherein the centralized packet switch fabric transfers packet-based signals among the packet network server and the circuit network server.

With regards to claim 13, for the same reasons as stated above for claim 1, Applicant submits that neither Benayoun nor Li, alone or in combination, discloses at least, performing echo cancellation on the circuit-based signal; performing packet adaptation on the circuit-based signal forming a packet-based signal; transferring the packet-based signal to a centralized packet switch fabric; transferring the packet-based signal from the centralized packet switch fabric to a signal processing server.

With regards to claim 15, for the same reasons as stated above for claim 1 and claim 3, Applicant submits that neither Benayoun nor Li, alone or in combination, discloses a centralized packet switch fabric; a circuit network server having a first port for sending and receiving circuit-based signals with the circuit network, the circuit network server having a first at least one digital signal processor to perform packet adaptation and a second at least one digital signal processor which subsequent to the packet adaptation performs signal processing and a second port for sending and receiving packet-based signals having packets with the centralized packet switch fabric; and a packet network server having a first port for sending and receiving packet-based signals with the centralized packet switch fabric and a second port for sending and receiving packet-based signals with the packet network; wherein the centralized packet switch fabric

transfers packet-based signals among the packet network server and the circuit network server, and among the packet network server and a second packet network server.
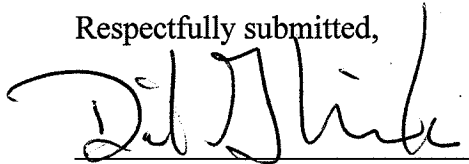
Claims 4-12 depend directly or indirectly from claim 3. For the same reasons as stated above for claim 3, Applicant respectfully submits that claims 4-12 are in condition for allowance. Claim 14 depends directly from claim 13. For the same reasons as stated above for claim 13, Applicant respectfully submits that claim 14 is in condition for allowance. Claims 16-18 depend indirectly or directly from claim 15. For the same reasons as stated above for claim 15, Applicant respectfully submits that claims 16-18 are in condition for allowance. Claim 19 depends directly from claim 1. For the same reasons as stated above for claim 1, Applicant respectfully submits that claim 19 is in condition for allowance.

CONCLUSION

Applicant's discussion of particular positions of the Examiner does not constitute a concession with respect to any positions that are not expressly contested by the Applicant. Applicant's emphasis of particular reasons why the claims are patentable does not imply that there are not other sufficient reasons why the claims are patentable nor does it imply the claims were not allowable in their unamended form.

In view of the foregoing remarks and the inability of the prior art, alone or in combination to anticipate, suggest, or make obvious the subject matter as a whole of the invention disclosed and claimed in this application, all claims are submitted to be in a condition for allowance, and notice thereof is respectfully requested. If the Examiner feels that a telephone conference would expedite the prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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